

Overview

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- Mitigation

USACE Regulatory Background

- Rivers and Harbors Act of 1899
 - Regulates work or structures that could affect the course, location, or capacity of navigable waters of the US
- Federal Water Pollution Control Amendments (Clean Water Act) of 1972
 - Primary Federal law governing water pollution in the US
 - Regulate water quality in waters of the US (Section 401)
 - Regulate discharge of dredged and fill material in waters of the US (Section 404)



The 1969 fire of the Cuyahoga River, Cleveland, OH.
Photo from AP

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Waters of the US

- Defined in 33 CFR 328.3(a)
- Includes:
 - All Navigable waters
 - Interstate waters
 - All other waters (intrastate lakes, rivers, streams, mudflats, wetlands, etc.) in which the use, degradation, or destruction could affect interstate or foreign commerce
 - Impoundments of waters of the US
 - Tributaries of waters of the US
 - Territorial seas
 - Wetlands adjacent to waters of the US



Colorado River, AZ

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USACE Regulatory Jurisdiction

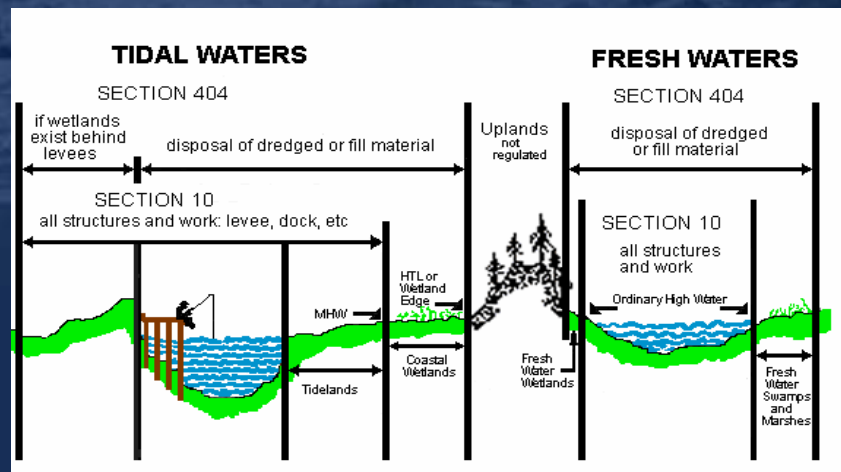


Figure from USACE

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Ordinary High Water Mark (OHWM)

- Line on shore or bank established by water fluctuations which occur on regular or frequent basis
- OHWM is determined by physical evidence, examples include:
 - clear, natural line impressed on the bank
 - change in vegetation types
 - Shelving
 - cut slopes
 - soil changes
 - vegetation destruction
 - presence of debris line



Figure from USACE

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Ordinary High Water Mark (OHWM)

- OHWM determinations can be complicated in the arid southwest due to:
 - High variability in precipitation and flow regimes
 - Steep and varying topography
 - Poorly developed soils
 - Sparse vegetation



Yuma County, AZ

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Waters of the US

- Man-made drainage ditches or channels excavated from upland areas are not considered waters of the US unless the ditch or channel:
 - Was constructed through an adjacent wetland
 - Provides a hydrologic connection between a TNW and an adjacent wetland
 - Extends the OHWM of a water of the US
 - Is used to reroute the flow of a water of the US
 - Connects two waters of the US channels
 - Supports relatively permanent flows that drain into a waters of the US

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Jurisdictional Determinations Under the Clean Water Act

- Influenced by two major court cases:
 - Solid Waste Agency of Northern Cook County (SWANCC) Decision in 2001
 - Invalidated the use of the “migratory bird rule”
 - Rapanos Decision in June 2006
 - Five separate opinions were issued
- USACE issued JD Guidance in July 2007, revisions issued in December 2008
- USACE issued Preliminary JD Guidance in July 2008
- USACE issued Arid West Supplement for Wetland Delineation Guidance in Sept 2008



Rio Puerco, Apache County



Jurisdictional Determinations 2007/2008 Guidance

- EPA and USACE will continue to assert jurisdiction over:
 - Traditional navigable waters (TNW)
 - Wetlands adjacent to TNWs
 - Non-navigable tributaries of TNWs that are relatively permanent waters (RPW)
 - Wetlands that abut RPWs
- EPA and USACE will decide jurisdiction based on a fact-specific analysis to determine if a “significant nexus” with a TNW is present for all:
 - Non-navigable tributaries that do not exhibit relatively permanent flows (non-RPW)
 - Adjacent/abutting wetlands to these non-RPW tributaries



Significant Nexus with a TNW



Colorado River, Coconino County, AZ

- Determined by the presence of a:
 - Chemical connection
 - Biological connection
 - Physical connection
 - Historical connection
- Includes consideration of hydrologic and ecologic factors
- A significant nexus is defined as “more than a speculative or insubstantial connection”



Jurisdictional Determinations 2007/2008 Guidance

- Certain ephemeral waters in the arid west that serve as tributaries have a significant nexus to a downstream TNW
- Ephemeral tributaries collect and transport water and sediment from upper reaches to the TNW
- Ephemeral tributaries may provide habitat for wildlife and aquatic organisms
- Biological and physical processes within an ephemeral tributary may significantly affect the chemical, physical, and biological integrity of the TNW



Jurisdictional Determinations 2007/2008 Guidance



Ornamental water body, Chandler, AZ

- Jurisdiction is generally not asserted over:
 - Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
 - Drainage ditches, including roadside ditches
 - Irrigation ditches
 - Artificial lakes or ponds (e.g., stock watering, irrigation, settling basins)
 - Ornamental bodies of water in upland areas

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Wetland Delineation Arid West 2008 Supplement



Photo from USACE, Regional Supplement: Arid West Region (version 2.0)

- Applicable to the 12 western states (portions of or entire state)
- Guidance for identifying and delineating wetlands that may be jurisdictional under Section 404
- Identifies wetland characteristics of the arid west region (vegetation, soil, and hydrology)
- Assists in wetland determination in difficult-to-identify wetland situations in the arid west
- Western Mountain 2008 Supplement addresses wetlands in the mountain regions of the state

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USACE Preliminary Jurisdictional Determinations

- June 26, 2008 – USACE issued guidance allowing for “Preliminary Jurisdictional Determination”
- Indication that there may be waters of the US within the project area
- Assumes that potentially jurisdictional areas are jurisdictional
- Non-binding and not appealable
- Allows projects to move forward



Dredged or Fill Material

- Any material excavated or dredged from waters of the US and redeposited into waters of the US (33 CFR 323.2[c,d])
- Any material placed into waters of the US where the material has the effect of replacing a water with dry land or changing the bottom elevation of the waterway (33 CFR 323.2[e])
- Examples Include:
 - rock, soil, or sand
 - plastics
 - construction debris
 - wood chips
 - over-burden from mining or other excavation activities
 - any materials used to create any structure or infrastructure in waters of the US



Photo from USACE, St. Louis District



Regulated Activities

- Construction examples associated with the placement of fill includes:
 - any structure or infrastructure
 - impoundments
 - recreational, industrial, commercial, residential, or other uses
 - causeways or roads
 - dams or dikes
 - intake and outfall pipes
 - subaqueous utility lines
 - property protection or reclamation devices
 - levees



Navigation locks and dam under construction, Ohio River
Photo from Whitehouse.gov

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ADOT Section 404 – 401 Procedures, Applications, and Permits

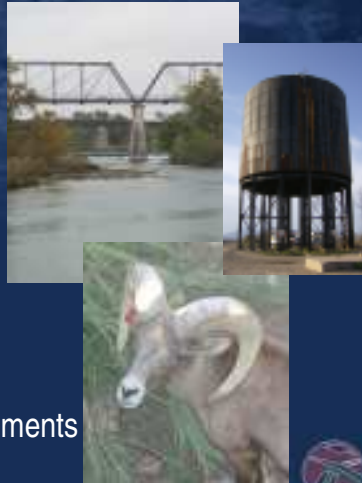
- EPG - Section 404 Procedures Manual
 - Provides guidance on the preparation of JDs, NWP PCN submittals, and IP applications
 - Divided into 5 easy-to-follow steps based on the following questions:
 - 1) Are waters of the US present within the boundaries of the activity?
 - 2) Will the activity involve the discharge of dredged or fill material into waters of the US?
 - 3) What type and quantity of impacts on waters of the US will result from the activity and will the impacts be mitigated?
 - 4) What type of Section 404 permit is required for the activity?
 - 5) What type of Section 401 certification is required for the activity?
 - http://www.azdot.gov/EEG_common/documents/section_404.asp

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Primary Items to Identify During Design & Prior to Construction Activities

- Presence of Waters of the US
- Biological Resources (GC #17)
 - Federally listed species
 - State and Tribal sensitive species
 - BLM or USFS sensitive species
- Cultural Resources (GC #18)
 - Archaeological and Historical sites
 - Traditional Cultural/Historical Properties
- Project Impacts
- Mitigation Measures (GC #20)
- Permitting Strategy
- Water Quality Certification Requirements



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Section 404 Permitting Mechanisms

- General Permits
 - Programmatic
 - Nationwide Permit (NWP)
 - Regional General Permit (RGP)
- Individual Permits (IP)
 - Letter of Permission
 - Standard IP



Skunk Creek at Loop 101, Arizona

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General Permits

- Issued for a category or categories of activities that are either:
 - Similar in nature and cause only minimal individual and cumulative adverse impacts (NWP and RGP); or
 - Result in avoiding unnecessary regulatory control exercised by another federal, state, or local agency provided that environmental consequences would be individually and/or cumulatively minimal (Programmatic General Permits).
- Always includes terms and conditions for compliance
- May require a pre-construction notification (PCN) to USACE (GC #27)



Nationwide Permits

- 47 Nationwide Permits (NWP)
- 28 General Conditions
- 3 Regional Conditions (for Arizona)
- Regional conditions may be developed by each USACE District and by the state water quality certification agency (e.g., Arizona Department of Environmental Quality [ADEQ])
- NWP are valid for 5 years from the date of issuance
- PCN required in many cases (GC #27)
- Resource agency coordination required in some cases (i.e., biological or cultural resources)



Nationwide Permit Examples

(Common Types of Permits)

- No. 3 – Maintenance
- No. 6 – Survey Activities
- No. 13 – Bank Stabilization
- No. 14 – Linear Transportation Projects
- No. 18 – Minor Discharges
- No. 20 – Oil Spill Cleanup
- No. 25 – Structural Discharges
- No. 33 – Temporary Construction, Access, and Dewatering
- No. 38 – Cleanup of Hazardous and Toxic Waste



NWP 3 – Maintenance

- Repair, rehabilitation, or replacement of currently serviceable structures or fills
 - A PCN is typically not required for these activities
 - Activities must not change the original or modified use of the structure
- Removal of accumulated debris and sediments in the vicinity of an existing structure
 - A PCN is required for these activities
 - Activities are limited to 200 feet from the structure
 - Rip rap added to protect the structure

Bridge Abutment, Apache County



Maricopa County, Wickenburg



NWP 13 – Bank Stabilization

- Activities necessary for erosion prevention, provided that:
 - No material is used in excess of what is needed
 - Does not exceed 500 feet in length*
 - Does not exceed one cubic yard per running foot below the OHWM*
 - Does not involve discharges of dredged or fill material into special aquatic sites, including wetlands*
 - Does not place material that will impair surface water flow
 - Material is not placed in a manner that would be eroded by normal or high water flows

**A PCN would be required if exceeded*



Rio Salado Bank Stabilization/Restoration, Bexar County, Texas

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NWP 14 – Linear Transportation Projects

- Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., railways, highways)
 - Discharge cannot exceed 1/2 acre within non-tidal waters of the US
 - Authorizes temporary structures, fill, and work necessary for project construction
 - Does not authorize stream channelization
 - Does not authorize non-linear features (e.g., train stations, rest areas)
- PCN is required for:
 - Impacts that exceed 1/10 acre
 - Impacts to a special aquatic site, including wetlands

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NWP 18 – Minor Discharges

- Activities that involve minor discharges of dredged or fill material into waters of the US
 - Discharge material cannot exceed 25 cubic yards below the OHWM
 - Discharge material cannot impact over 1/10 acre of waters of the US
 - Discharge material is not used for the purpose of stream diversion
- PCN is required for:
 - Discharges below the OHWM that exceed 10 cubic yards
 - Impacts to a special aquatic site or wetland



NWP 33 – Temporary Construction, Access, and Dewatering

- Temporary structures, work, and discharges necessary for construction activities or access fills or dewatering of construction sites
- Following project completion, temporary fill must be removed to upland areas
- Affected areas must be restored to pre-construction elevations
- PCN is required for all cases and must include a restoration plan



Rio Puerco, Apache County



Regional General Permits

- RGP No. 63 – Repair and Protection Activities in Emergency Situations
 - Must present a clear “emergency situation”
 - Requires notification of the situation and proposed repairs
 - All repairs must be initiated within 7 days of notification
 - A compliance report must be completed within 45 days of project completion



Rio Puerco, Apache County



Individual Permit (IP)

- Activities that exceed impact thresholds covered by NWPs or RGPs
- Public Notice (30 days comment period)
- Opportunity for public hearing
- EA/FONSI or EIS/ROD to satisfy NEPA and comply with Section 404(b)(1)
- Alternatives analysis (reduce, reconfigure, or relocate)
- USACE must select the least environmentally damaging practicable alternative



Aerial View of the Agua Fria River,
Photo from CAP



USACE Mitigation Policy

- Improving, Restoring, and Protecting the Nation's Wetlands and Streams
- Regulatory Program Policy (Los Angeles District) latest update:
 - Special Public Notice: Final Mitigation Guidelines and Monitoring Requirements in 2004 (http://www.spl.usace.army.mil/regulatory/mmg_2004.pdf)
 - Final Compensatory Mitigation Rule in April 2008
- Applies to all permits including general permits
- Mitigation measures must be applicable and practicable for the activity
- When there is a proposed discharge to waters of the US, all appropriate and practicable steps must be taken to:
 - 1) Avoid and minimize impacts to aquatic resources
 - 2) To ensure the action will not be contrary to public interest
 - 3) Will meet other legal requirements with the goal of no net loss of wetland functions and values



Types of Mitigation - Primary

- **Impact Avoidance & Minimization**
 - Identify means to avoid and minimize impacts to the maximum extent possible
 - Redesign the project to avoid fill or work in jurisdictional areas
 - Identify design or construction measures that avoid adverse effects to protected species and cultural resources
 - Identify means to minimize any remaining unavoidable impacts
 - Project schedule adjustments
 - Stormwater management plans
 - BMPs/Erosion controls
 - Hazardous spill containment plan



Types of Mitigation - Secondary

- **Compensatory Mitigation**
 - For unavoidable project impacts
 - To replace the loss of wetland, stream, and/or other aquatic resource functions
 - Methods include aquatic resource restoration, creation, enhancement, and preservation
 - Compensatory mitigation will require a mitigation plan
 - Three types of compensatory mitigation
 - Permittee-Responsible Mitigation
 - Mitigation Banks
 - In-Lieu Fee Mitigation



Compensatory Mitigation

- Permittee-Responsible Mitigation
 - May be provided at or adjacent to the impact site (on-site), or at another location (off-site)
 - Mitigation Monitoring and Reporting Program is required
- Mitigation Banks (**Preferred**)
 - A wetland, stream, or other aquatic area that has been restored, established, enhanced, or preserved with a quantified value determined as mitigation 'credits'
 - Credits can be acquired by a Permittee to meet mitigation requirements
- In-Lieu Fee Mitigation (**Preferred**)
 - In-Lieu Fee Programs administered by government agencies or non-profit organizations that conduct wetland, stream, or other aquatic resource restoration, creation, enhancement, or preservation activities
 - Permit applicant may make a payment to an In-Lieu Fee Program



Section 401 Certification

- Certification requirements vary by Section 401 Jurisdiction
 - Tribal water, Unique water, Impaired water, or Other water
- Individual Certification is required for:
 - Unique & Impaired waters
 - Tribal waters
 - Activities permitted under a Section 404 Individual Permit
- Activities in Other waters that are covered by a NWP are Conditionally Certified (no application for certification needed)
 - Must comply with the Section 401 conditions listed on the NWP
 - Individual certification is required if conditions cannot be met
- EPA or ADEQ Individual Certifications must be forwarded to USACE



Summary

- USACE primary authorities:
 - Rivers and Harbors Act of 1899 (Section 10)
 - Clean Water Act of 1972 (Section 401/404)
- Waters of the US are defined by a OHWM and include TNWs, RPWs connected to a TNW, or a Non-RPWs with a “significant nexus” to a TNW
- Activities regulated by USACE include all discharges of dredged or fill material into waters of the US
- USACE regulates all waters of the US impacts through a permitting program
 - USACE permits include Programmatic, NWP, RGP, and IPs
- Biological and cultural resources must be identified for the project area and any potential impacts assessed
- Mitigation measures may be required for impacts to waters of the US, biological resources, and/or cultural resources



Initial Section 401/404 Questions

- 1) Are waters of the US present within the boundaries of the activity?
- 2) Will the activity involve the discharge of dredged or fill material into waters of the US?
- 3) What type and quantity of impacts on waters of the US will result from the activity and will the impacts be mitigated?
- 4) What type of Section 404 permit is required for the activity?
- 5) What type of Section 401 certification is required for the activity?

– EPG – Section 404 Procedures Manual
http://www.azdot.gov/EEG_common/documents/section_404.asp



ADOT Project Coordination with USACE

- Assigned USACE Representative for ADOT
 - Kathleen Tucker
 - ADOT Liaison, Regulatory Branch USACE
 - kathleen.a.tucker@usace.army.mil
- Permitting coordination efforts should be arranged with the EPG Planner
- ADOT permitting actions are coordinated by the EPG Planner through Kathleen Tucker prior to submittal to USACE regulators



Questions?

Presenter: Crystal Gerrity, CEP
crystal.gerrity@amec.com



Photos by C. Gerrity

